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ABSTRACT

This paper examines long-range problems caused by test-controlled schooling. It looks at the demands of both curricular and accountability uses of tests from the point of view of the urban school district's testing office. On the basis of interviews with 12 New Orleans teachers and the experiences of the authors in working in two large city testing offices (Dallas and New Orleans), the problems ("tentacles") related to testing and test data use are discussed in the following categories: (1) test data; (2) the theoretical ideal; (3) monitoring schools and accounting for progress; (4) public relations and testing; (5) testing and the curriculum; (6) testing and equity; (7) the school district testing unit; and (8) accountability and curriculum unity. Suggestions are made to better organize and coordinate the different aspects of testing. A three-page bibliography concludes the document. (JAZ)

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THE TESTING OCTOPUS: A TENTACLE FOR CURRICULUM

-OR-

HOW DO YOU DANCE WITH AN OCTOPUS?

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THE TEST INFORMATION OCTOPUS: A TENTACLE FOR CURRICULUM?

- OR -

HOW DO YOU DANCE WITH AN OCTOPUS?

This paper began in the lobby of the Palmer House hotel at last year's American Educational Research Association annual meeting when the two of us, then district-based test specialists in the testing offices of two large city school districts, shared our growing concern about the seriousness of the long-range problems caused by test-controlled schooling. We were delighted by the good news showing that test scores were on the upswing and that policy makers and community leaders were increasingly satisfied with the evidence indicating school people were "getting back to work." Test scores should be at their highest possible levels at all times, and when they drop because there is insufficient instructional focus, there clearly is work to be done.

However, we were not so sanguine about what increasing test success really meant. We took a more extended view. How long will it be before critics now urging our attention to higher test scores express dismay that high school graduates are not the self-motivated, thinking, creatively reflective, and opportunity-seeking young people of days gone by? The problem we saw was that test scores are the artifacts of school success, not its essence. Webster defines artifacts as "a modification in appearance, or structure of protoplasm, produced artificially or by death" (1972, p.106), reminding us that it is risky business to confuse artifacts with reality.

We were encouraged to look more closely at these issues by our teaching colleagues who, equally distressed by dangers they see in the national testing obsession, are at a loss for a constructive response. But, after a year of inquiry, we are humbled. Looking back -- even before the 20th century -- we found the same warnings about the perils of test excess that we hear today (Cole, 1985; Haertel & Calfee, 1983; Haney, 1984; Madaus, 1983; Rudman, 1980 to name only a selection of recent summaries of this issue). Since the first use of tests, curriculum and assessment professionals have consistently urged moderation and limits on the use of standardized tests and test information.

Nevertheless, another school year is winding down with still more concentration on developing curricula steeped in regular standardized testing of substantively limited objectives and content. The tedium of multiple choices, computer-gridded forms, and sharpened number two pencils fills ever more of our children's school lives. The annual achievement testing cycles have burst through the cold winter's ground along with the spring and flowers, and, throughout the country, students are gearing up for tests as we speak. During the past year, legislatures and school boards mandated still more testing; thicker

volumes of procedural regulations fill classroom shelves where books used to be; and teachers and administrators are weighted down with ever-changing reporting procedures that compete for a substantial block of the five precious instructional hours available daily.

Once again this year, AERA abounds with reports of the obvious: The "effective schools research" finds that with increasing standardized testing, we also see increases in tested achievement scores. "More effective schools," the reports confirm. Are we sure? We share Floretta McKenzie's view, expressed recently in Harper's, that we must more candidly address the underlying tough test-curriculum policy issues because, if we do not, "A lot of kids are going to get hurt while we skitter around on this hot political frying pan" (1985, p.41; see also, Cuban, 1984).

The octopus provides an apt metaphor for the testing phenomenon. The octopus is a large-brained, dangerous-looking but benign creature, with considerable ability to absorb and store information. It takes on the appearance of its environment so its tentacles, richly endowed with nerves and muscles, reach out with little notice to adhere powerfully to its source of nourishment. In spite of its threatening form, however, the octopus presents very little real danger to man, except when taunted and badly frightened.

Lest the parallel escape you, consider the wide reach of tests in our schools. Camouflaged as curriculum scope and sequence charts, the newest tests present themselves in quick, slick brochures as logically laid out curriculum-centered diagnostic tools, capable of carrying intellectually weighty loads and serving multiple instructional purposes. Although testing experts speak tirelessly of the limited appropriate uses of the test information that is absorbed and stored in the large brain of this creature, most children, parents, and teachers see tests as ominous and, quite understandably, regard them suspiciously. Those of us who test successfully are more familiar with this friendly beast and have learned its ways. We confidently dive into the deep, dark waters, secure in the knowledge that tests cannot hurt and, in fact, that they are filled with the potential to help. We are unconvincing to onlookers, though, especially since we have yet to demonstrate our claims of the beast's friendly nature to others who cannot swim fast enough to stay away.

The purpose of this paper is to explore the tentacles of the testing octopus from the vantage point of the urban school district's testing office. With this frame of reference, we look at the demands of both curricular and accountability uses of tests. We consider how the massive logistical problems associated with administering tests in large cities limit the curriculum support to schools that most testing offices can provide. Our conclusion envisions a better equilibrium between accountability and curriculum, with emphasis in classrooms where teachers can fully align tests with the substantive content they teach each day.[1]

Our data base is, frankly, experiential. We interviewed a sample of twelve teachers in New Orleans, each representing a different school level and group of learner needs. In addition, using notes from our work during the past several years in two of the country's large city testing offices -- in New Orleans and Dallas -- we recorded problems related to testing and test data use, as seen from within those test centers.

Tentacle #1: Test Data: A Power Base With Uncertain Meaning

We are undeniably in an information age, and the possessor of information wields power. In school districts, the departments that house testing offices coordinate the most systematic and easily obtained information about educational progress in the district. Observers frequently assume that, with this information, testing units are free to affix themselves to the district's organizational branches and can reveal the "truth" regarding program effectiveness and students' educational needs. This control, however, is more apparent than real.

School districts are subject to the cross-pressures of numerous internal and external forces, and testing units are caught up in the play of these relationships. The logical place management and the community can turn for answers to questions about educational performance is the testing office. But test information use is more complex than it is assumed. Test data appears simple, because, as often as not, its users find more meaning in the scores than do either test experts or teachers (Haney, 1984). Score increases or decreases of several points may alarm a principal, parent, or school board member, whereas the test specialist expects such fluctuations, considering them routine. The attractive multiple formats in which test information is now charted and presented lends it to being readily used and misused to achieve conflicting organizational, political, and personal goals.

The illusive simplicity of test information puts the school district's testing unit in a politically and professionally sensitive position. It takes time, planning, and a highly skilled technical staff to establish a responsive data base that flexibly analyzes and produces custom-designed evaluation information that answers the questions most frequently asked about schools' progress. The testing offices are generally very small subunits within larger and more powerful evaluation or research departments, and, in most cases, their absorption with technical matters subordinates them to more politically astute and powerful organizational forces within the school district. As a result, rather than serving as the predominant policy and decision making authority in testing, the testing staff finds itself implementing mandates made by less knowledgeable school managers. While the testing unit might offer advise to top decision makers, they are rarely in a position to directly orchestrate the organization's policy on how to use tests or test information.[2]

Tentacle #2: The Theoretical Ideal: Testing Supports Children

The primary function of achievement tests in schools is to provide systematic information about students' learning status -- an innocent enough task. Standardized achievement testing was created to examine individuals' achievements, and only recently has it also become the major tool for assessing group progress as well. Whether test information is used at the individual or group level, tests are, nevertheless, administered for the purpose of making comparisons. This comparative aspect, its key controversial element, is inevitable and can be an asset.

Tests are designed to support children. It should be instructionally beneficial to reference an individual learner's or a group's achievement -- whether strong or weak -- to well-defined standards, but the benefit comes only if professionals use the findings creatively and constructively. In conjunction with other behavioral evidence of learning or learning problems, test data can be a powerful asset in mediating instructional planning for all children. Appropriate use of test information keeps everyone involved aware of accomplishments and of further work that is required.

School district testing programs are, on the whole, guided by the following child-oriented and curriculum-related purposes (Gronlund, 1985; Hathaway, 1983; Nitko, 1983; Thorndike & Hagen, 1977; Ward, No date):

1. To identify students' special instructional needs;
2. To diagnose weaknesses in students' preparation for learning;
3. To guide instructional and institutional decision making so that instruction focuses on bridging gaps in students' knowledge base and cognitive processes;
4. To identify programmatic weaknesses;
5. To guide vocational planning and instructional choices (e.g., course selection); and
6. To inform children, parents, and teachers about student progress in comparison to other same-age students and to the defined behavioral standard.

Tentacle #3: The Watchdog: Monitoring Schools and Accounting for Progress

Testing meets certain organizational needs, as well. Tests are readily accessible tools for routinely monitoring schools or programs and for diagnosing systemic problems so adjustments can be made. They have been adopted by the public and policy makers as the most convenient available mechanisms for monitoring and evaluating educational policy implementation.

In the last five years, Louisiana and Texas have joined other states and instituted extensive instructional testing. Both the state legislatures and the local school boards have taken mandates from their constituencies seriously, and they have greatly expanded their required accountability testing.

A look at the effect of state and local testing mandates in the two large city school districts in which we have worked is instructive. The list of tests administered in both locales includes nationally norm-referenced tests; state-mandated criterion-referenced tests for promotion and/or graduation; locally developed and standardized tests linked to the curriculum; miscellaneous testing of gifted and talented, special education, and limited English-speaking populations; and regular cycles of pilot tests used to develop new locally or nationally standardized forms of future tests. New Orleans is at the low end of the curve on the number of centrally administered tests; Dallas is at the upper end.

New Orleans coordinates the spring administration of three districtwide testing programs. The norm-referenced test, Comprehensive Tests of Basic Skills (CTBS), is administered annually to all (84,000) students in kindergarten through grade 12. The State-mandated, criterion-referenced Basic Skills Tests, are part of the criteria for promotion in grades 2,3,4, and 5 and call for testing of 25,000 students. The State Assessment Tests, administered in grades 7 and 10 to 15,000 students, are the mandated high school tests and are used for advisory purposes only. In addition, the testing unit in New Orleans coordinates the distribution of materials and the design of procedural guidelines for the district's mandated curriculum-based test, now called the Benchmark Test of Basic Skills. The Benchmark Tests are administered quarterly in grades 1,2,3,4, and 5 to about 32,000 students. Each test administration involves planning, scoring and reporting for regular education students and separate procedures for testing and scoring handicapped, gifted, talented, and limited-English speaking students.

The Dallas Independent School District coordinates a more extensive testing program. The norm-referenced testing includes two tests, the Iowa Tests of Basic Skills (ITBS) for 90,000 students and the Tests of Achievement and Proficiency (TAP) for 30,000 students. Students in grades 1,3,5,7, and 9 take the state-mandated Test of Educational Assessment and Minimal Skills (TEAMS) in February each year. At the ninth grade, passing scores of 70 percent are required for graduation. The districtwide Survey Tests of Essential Elements/Learner Standards monitors achievement at the end of each semester for all 120,000 students in the district. There are also supplementary oral language proficiency tests administered to limited-English students twice each year. A norm-referenced test is given in Spanish to Spanish-speaking students in the bilingual program. Students considered for the Talented and Gifted Programs take the Cognitive Abilities Test. Finally, the

Dallas testing unit coordinates the administration of the districtwide personnel test for potential district administrators.

Ideally, all of this testing is used diagnostically. In reality, though, few of us are good at using critical information well, and institutions are particularly weak at self-diagnosis and change. As a result, many potential benefits of testing are avoided out of fear of their implications, except by the most healthy individuals and programs or schools within the district. Although the two basic purposes of testing -- instructional support and organizational monitoring -- are not inherently conflicting, in practice, instructional test use is often forced aside to accommodate the demands of monitoring and accountability reporting. Presentation of the data is the craft; subtle use of the information is the art. Where in school bureaucracies is there room for the artist to work?

Tentacle #4: The Hard Sell: Public Relations and Testing

Numerous client groups expect that testing information will provide data upon request, each group defining "responsive" differently. Computers and advanced graphics-design tools have made it possible to provide test information in a myriad of formats, views, groupings, and levels of complexity. The list of primary clients for this information is long, each wanting data to be reported in a manner that is readily interpretable and appealing to its own constituency.

The superintendent's office and the top managerial team are the testing office's first clients. Within the school system, other users include instructional planners and supervisors, directors and coordinators of special programs, principals, and, finally, teachers. But the user list continues. Parents of gifted, at-risk, special education, and Chapter I students call for individual and group data about their youngsters and about the effectiveness of the programs for their children. Businesses -- often working through the Chamber of Commerce or other ad hoc alliances and associations -- look to schools to help provide the potential work force that will attract new industries. The achievement of students in the state's urban core influences the national image of the entire state as an economic environment worthy of additional investment. Thus, in the state capital, legislators and policy makers attend closely to how the largest cities do on tests and are rarely shy about stepping in with their own recommendations.

Thus, public relations is a major aspect of districtwide testing programs. The "bottom line" that describes achievement status is never far from the consciousness of any major decision makers or community leaders, and the way information is presented is critical. No multimillion dollar corporate concern disseminates its annual product reports without substantial attention to the appearance of the data. School districts have been slow to orient themselves similarly, but, as they do, the specialists in the test units find themselves in a delicate

position. The goal is to develop and report information accurately and fully, but to do so in a manner that states the realities without alarm. There is enormous potential for misinterpretation, and misinterpretation becomes a burden directly and quickly felt in both the superintendent's office and in classrooms.

Tentacle #5: Testing and the Curriculum: Where Is the Fit?

The importance of matching curriculum and tests is an easy platitude to affirm. In the past several years, this topic has been one of the most popular in educational and testing journals, at conferences, and at meetings of educators and parents throughout the country.[3] When we talked with teachers to learn from them how to improve the instructional uses of tests, they were pessimistic. On the one hand, most teachers agree that tests are important, but there is a strong undercurrent of professional discontent speaking with a voice that warrants attention.[4]

For many teachers, the issue has become curriculum, tests, or kids, but they do not see a possibility that includes adequately attending to all three. As one teacher said, "You get the feeling there's no one out there but a machine that's on the fritz. I just try not to get too outraged. I walk into my room, close the door, and, regardless of the directives, I do my best. Oh, yeah, I get the forms filled out -- often by the kids -- they love it, and they do a great job on them. While they do the paperwork, I try to squeeze a little real teaching in."

Some teachers believe that tests are the cynical, easy way out. A group of teachers discussing the role of teaching and curriculum said, "Tests are tidy. It's easier for the public and the 'powers that be' to look at all these isolated skills than to look at the real issues or to face the responsibility of what it will take to meet kids' needs." A disillusioned 30-year veteran teacher reported, "Teachers teach the objectives; they bulldoze the skills through without seeing that kids have real knowledge, and they can say they've done their job. They play the game, even at the expense of kids."

Another teacher said, "The objective-based system made me teach the standard, the so-called 'grade-level' objectives. None of it made sense for my group of kids. I was told to move the kids on, even if they weren't ready. The administrative directives about objective-based teaching conflict with the reality of children's development and learning. But, it's a political thing, and what can I do about it?"

It seems that neither the curriculum nor tests have made it through the classroom door in any meaningful way. Both come to schools in the form of thick volumes of directions, not infrequently used as duplicating paper by desperate teachers with limited spring paper supplies. They are explained at one or more hurried workshops in which central office administrators provide the rationale underlying the mandates for their use. Curriculum and testing have now both become the predictable

bureaucratic headaches of school life. Too difficult to be digested by teachers in their limited available time, if guidelines are read, they are too cumbersome to be used within the allotted hours of the school day. Our teaching colleagues cynically reported to us that, as far as they were concerned, both curriculum guides and tests serve systems, not kids.

Tentacle #6: Testing and Equity

Testing has become throughly tied to the politics of assuring that schools are equitably meeting the needs of the various ethnic minorities in city public schools. But, the dilemmas of urban life, combined with the persistently low expectations some teachers still have for minority students, constitute forceful barriers to test success among our cities' students. While a balanced use of tests can support students by focusing educational assistance where it is needed, such balance is the exception, not the rule. Test results more typically limit the curricula of the very students requiring diversity. A curriculum centered on standardized tests of narrow reading and mathematics objectives fails to acknowledge or to engage the important characteristic strengths and talents minority students bring with them to school. Instead of assuming the achievement differences revealed by tests can be used to identify students' available skills, the variations are diluted through score averaging and hidden, disregarded, or trained away.

Dependence on standardized test information for determining promotion sustains the cycle of failure that has already been well established for these youngsters. While mandated testing has been an asset to some, in too many schools serving low achieving minority populations, we have observed that the curriculum is stripped. "Test taking strategies" are the focus of instruction. Students maintain notebooks of multiple choice drills that parallel items on tests. Physical education, arts, music, even social studies and science, are squeezed into the little time remaining after the mandated skills are mastered. For students resisting mastery, the program is more narrowly limited. The climate of these school environments is strained. Hallway bulletin boards graphically display test scores and gains, holding in distinction the names of test successful students and teachers. There is space for nothing more.

Confusing high test scores with educational excellence is shortsighted. Test score equality among ethnic groups is not sufficient evidence that equal educational opportunity or achievement have been attained. Test score improvement has many explanations. How much has the curriculum been diluted to center on standardized test items that lull observers into a false sense of satisfaction that schools are back to the so-called successes of the "good ol' days?"

Tentacle #7: The School District Testing Unit: The Coordinating Arm

School districts generally assign the support function of testing to the unit that coordinates the logistics of test administration. This would also be the obvious place to turn for guidance in curriculum uses of test information, but, as we describe below, the dominance of logistical concerns in testing offices easily perpetuates curriculum neglect.

There is little written about how districtwide testing units function across the country. Our search for basic information about test offices revealed only two major references (Hathaway, 1983; Rudner, 1980). On the basis of Hathaway's book and on our contacts with colleagues in the National Association of Test Directors, we find that New Orleans and Dallas are configured much like other district testing offices.

Both Dallas and New Orleans are among the largest school districts in the country. Dallas is the larger of the two with about 120,000 students, and New Orleans serves about 84,0000. Although, in both districts, enrollments have declined in the past twenty years, a greater concentration of urban poor and non-English-speaking families have gathered in these communities, greatly increasing the complexity of the educational challenge. In New Orleans, the student population is only about 8 percent white; Dallas is about 20 percent nonminority. More important than race, of course, are the other demographic changes in the populations the districts serve. The number of limited English-speaking students in both districts has increased in the past ten years, to 5 percent in New Orleans and to almost 30 percent in Dallas. There are also more students receiving family aid, through free lunch programs or AFDC supplements. Finally, ever larger numbers of special education students are mainstreamed into segments of the regular education program.

As the demographics of the school districts have changed, so have the responsibilities of the districts to meet state-established instructional and testing mandates. The testing office is the center through which this coordination occurs. With the increasing number of tests administered each year testing unit staffs, teachers and school-based test coordinators (who are often also full-time teachers) spend a greater proportion of their time trying to read, comprehend, and implement new test rules and procedures. Teachers do their best to teach children how to respond to the computer-gridded answer sheets and check to see that the instructions have been followed carefully enough to assure accurate computerized scoring. This is a more complicated task than most people realize, absorbing substantial segments of the school day for several weeks prior to each mandated test.

Not surprisingly, the testing offices are staffed sparsely, by contrast to the need. In addition to the units' directors, there is one evaluation specialist in New Orleans and two in Dallas. These individuals conceptualize the testing programs, develop and write implementation instructions and interpretive reports, and conduct

inservices for test coordinators, teachers, and, when asked, parents and other members of the community. Data specialists are also part of the small implementation teams -- one each in New Orleans and Dallas. They coordinate scoring, scanning, and the test data base maintenance. There are, then, test service center coordinators -- one in New Orleans and two in Dallas -- plus several additional emergency support individuals who are hired to assist during heavy testing times. These teams receive and disseminate test materials, package and inventory tests, and prepare test documents for computer scoring. A unit secretary in each district assists the professional staff with the numerous phone calls and urgent cries of concern and confusion that come from schools and from parents throughout the year.

This staffing configuration means that the emphasis on testing within the test units is on logistics and reporting. Units are small nerve centers, tracking numerous bits of data. Like a one-armed juggler, they are always on the move, keeping just ahead of the dropping balls. In both systems, the testing units annually send parents reports of their students' achievement progress and prepare extensive classroom-based charts and lists of scores for teachers' program planning and individual student diagnosis. They forward accountability and management planning documents to administrators and managers, accompanied, if requested, by written or personally presented interpretations. The test data also serve as the base for evaluations of districtwide compensatory and school effectiveness programs.

Except for a few short summer weeks, the staff are always fully absorbed with the multifaceted aspects of test program implementation. After the test administrative responsibilities are completed, there is little remaining time to guide instructional applications of test information. Inservice programs are routinely conducted, but they are short, usually presented in the midst of the teachers' hurried day or week, and the participants seldom have the time to reflect on or to plan how to follow through with the information they receive.

The downtime for the testing office should occur in midwinter, after reports have been distributed and prior to the new testing cycle. In practice, though, there is no downtime because, each year, just as as the winter's opportunity for planning, inservicing, and regrouping occurs, the district or the state is hit with a new test-related crisis. One year rapidly runs into the next as this year's testing program is put on top of still green earlier programs, and the unit's staff specialists become involved with coordinating the procedural and logistical aspects of yet another test.

In the concentration on the administrative aspects of testing, the important support of teachers stands still. Overwhelmed, school-site staff try their best to put order and meaning on the vast, confusing array of data they receive. The school district finds itself unable to allocate the needed resources to do more than pay lip service to the applied diagnostic uses of the test information, and the dissonance

between the promise of testing and its actuality continues to generate frustration among test "experts" and users alike.

Tentacle #8: Accountability and Curriculum Unity: A New Perspective

How can both children and institutions be better served by testing?

At last year's AERA meeting, Philip Jackson (1985) presented a heuristic for thinking about teaching that integrates the approaches traditionally taken by behaviorist and humanist factions in education. Jackson described dichotomous conceptions of teaching and knowing, "mimetic" and "transformative." This framework also provides a lens for viewing the accountability and curriculum aspects of testing and for thinking more creatively about test information use.

A brief introduction to the concepts is necessary first (Jackson, Ibid.). Mimetic knowing and teaching are associated with transmitting facts and procedures among people. Mimetic knowledge is "presented", rather than discovered, and it is capable of being judged as right or wrong. Jackson speaks here of "objective" knowledge, information that can be reproduced and mirrored, holding its same form, and, like a spelling word or an equation, understood in essentially the same way by more than one person. Transformative knowledge, in contrast to mimetic, is metamorphized when passed among people, making a qualitative change when it is exchanged. Transformative knowing involves modification in the knower and the known, and alterations in values, interests, attitudes, or ways of doing things.

If we consider the accountability-oriented uses of test information as mimetic, and curriculum and instruction applications of test information as transformative, we have a productive parallel with a teaching model that can be applied to test use in schools. The testing process and the results of tests conform to Jackson's definition of mimetic knowledge. Tests typically assess students' attainment of the mimetic, and test results themselves are commonly used mimetically. Since objective knowledge is "reproducible", it is easily transmitted from student to teacher. When children respond to test items, they are "detaching" what they know and displaying it on the test so the teacher can judge its correctness. The mimetic function of testing refers to taking detachable knowledge -- reproducible, transferable information about what "objectives" children have learned -- summarizing it, labeling it with scores, and mapping it onto test reports. It then can be presented to parents and others interested in reviewing students' progress in learning mimetic aspects of the foundation curriculum. Test information yields a measure of the success of the major component of most current curricula -- that which is mimetic. In fact, it is the chief criterion by which the learner, the teacher, and the schools measure educational attainment.

We all know, however, that we also want schools to concentrate on teaching in the transformative tradition as well as in the mimetic; that

is, to teach so that students' attitudes, values, and interests evolve to ever higher levels. At the same time teachers are teaching the mimetic foundations, we expect them to mold young learners so they develop the character and personality traits most valued by society: responsibility, independence, creativity, motivation, and the like.

Continuing the parallel with test information use, we see that test data can, indeed, should be used transformatively to modify the teaching process to increase the learner's receptiveness to instruction. Transformative use of test data occurs when test results are considered diagnostically, as live evidence of a learner's progress, not as sterile, unconnected bits of knowledge that sum to a high or low score. Test data are transformatively applied when they are analyzed and exchanged between the teacher and learner or parent, or between the administrator and teacher. Beginning with the objective data, tranformative applications of test information evolve into robust understandings of learners' knowledge status or of the school's or program's current situation and hoped-for future direction.

There are more if-thens, yes-buts, let's checks in the transformative examination of test information. The style of information use is not coolly rational; it is richly intricate, and rarely clear-cut. Transformative test users may look rather humble. By contrast to the mimetic test users, they resist simple summaries and disregard numbers and charts.[5] But they are master diagnosticians who have learned to use interviews, observations, and integrated analyses to consider the next steps in teaching and learning. Tranformative users of tests do not equate low test scores or 80 percent of objectives mastered with an instructional prescription. There is, instead, a carefully interwoven tapestry of possibilities revealed by a test and a matching loom to frame the instructional response correctly.

Even though testing now largely involves only the assessment of mimetic information, the transformative use of that information creates a constructive opportunity to unite accountability assessment and curriculum more effectively. The challenge is to assure that the opportunity is grasped. Who encourages such use? Who monitors to see that it happens?

Dancing with an Octopus: Does Anyone Know the Eight-Step?

How would testing departments work differently if the mimetic and transformative aspects of testing were coordinated and in balance? Two themes present themselves: collaboration and refocusing.

Collaboration is fundamental to productive use of test information. In part, the time and resources are not allocated to innovative thinking about test information because test units emphasize preparing and disseminating the data over what happens after it leaves the testing

office. Collaboration is well known to lead to more productive thinking and working relationships. The attitudes towards test information and its use are key here, not the scores.*

Refocusing is the second element. Place the premium on using data to institute serious program changes, not on monitoring alone. Support an extended rather than a narrow curriculum that recognizes both the necessity and the limits of mimetic knowledge and testing. When serious gaps in students' grasp of fundamental mimetic skills appear, substantive action needs to be taken to fill them. Persistently low test scores point to the continual failure of the traditional curricular and instructional approaches we have used. Children who stumble on learning the "factual" elements in the curriculum apparently need to be helped to learn from a new perspective, within a new framework. Here is where transformative teaching (Jackson, Ibid.) -- through "personal modeling", rhetorical teaching, and the extended use of narrative and discussion -- can lead to the transformations in the cognitive foundation that students may need to become ready to learn.

Finer-tuned diagnostic work by principals and teachers must follow the return of test information. Concentrate on empowering teachers to originate far-reaching changes in their teaching that address not only mimetic, but also transformative, knowing among students. Accountability programs need to mandate and underwrite the follow-up necessary by outstanding teachers who have made diagnosis and responsive pedagogy their specialization. The testing professionals must be as committed to insisting on adequate diagnostic uses of tests as we are to assuring our tests meet rigorous technical quality standards. And, we must inspire teachers to seek out more creative responses and give them the independence to make the program changes they deem essential.

Practical Applications and New Directions

Certainly we need to better organize and coordinate this many tentacled creature -- the test octopus. Several suggestions that emerged again and again in our investigation of this problem may assist:

1. Share the "ownership" of test data, taking it out of the central office testing unit, making it more accessible to teachers. At the same time, invest in the rapidly advancing technology available for school sites to develop more creative uses of test information. This includes making initial capital investments in more efficient and responsive test data retrieval systems that simultaneously provide the accountability information needed for school sites, central offices, legislative agencies, and policy makers.

2. A persistent conflict rages between the paradoxes of education --in the means/end and personal/mechanical views of the teaching and learning processes. We can describe the black box, but only the learner can control what and how he/she learns within it. The teacher, subtly

using the available mimetic forms of knowing - those that are reproduceable, mirrored, and objective - in transformative ways, is the only professional in the position to merge the knower with what is to be known.

3. Restore the linkers -- those old fashioned master teachers, supportive consultants, and supervisors -- who help teachers see the undiscovered links between instruction and learner needs. This means continually sponsoring both diagnostic training and supplementary assistance at school site levels. We have lots of tests and testers, but few intepreters, implementers, or teachers who skillfully use the information.

4. Recognize that simple numbers cannot change children's success in schools, and use test data to improve teachers' diagnostic and analytical skills. Then encourage teachers to breathe life into their teaching processes by designing new ways to instill old concepts.

5. Make administrative changes that move away from the model of teacher as factory worker, returning instead to the vision of the teacher as doctor and artist.

We have struggled in developing this paper because we sought a new perspective on an age-old problem, the tension between classroom teaching/learning and management/accountability. Although we have often restated ancient wisdom, the view from the testing office presents it from a new perspective. The persistence of old problems suggests that good solutions may have been found, but not implemented, and that the paradigm for analyzing the problem adequately has not yet been uncovered.

In truth, the octopus is a benign creature, capable of using its powerful arms and highly complex and sensitive nerve structure to its best advantage. Except when threatened, it contributes compatibly to the natural balance of its environment. Tests and testing departments, too, have this sensivity. They need only the encouragement and support to apply it in the service of children.

NOTES

1. So much related to the topic of curriculum and testing uses and abuses has been written in the past decade and, in fact, throughout the century, that we include a bibliography that references our favorite recent commentary on these issues.

2. Cooley & Bickel, 1985, Chapters 2 and 8, especially, provide a comprehensive discussion of the cross-pressures controlling school district decision making, especially as it relates to use of test information. Over the five to seven-year period they describe, and using a relatively large, and uniquely high-powered team of evaluation and test experts, they were able to influence increasingly appropriate test information use, but still in limited ways. The model is an outstanding one, but, as they candidly describe, its achievements were slow to evolve, and, even now, there is more work to be done.

3. Most recently, the October 1985 Educational Leadership featured this issue.

4. In addition, Darling-Hammond and Wise (1985) present good examples of teachers' strong responses to the dilemmas posed by the contradictions in meeting the dual goals of minimum competency testing and instructional improvement. Education Week has also provided "Commentary" space for many teachers to express their views on these issues. Ohaniam, 1985, is an example. There are many others.

5. See Oscar Boros' comment in the introduction to Tests in Print (1961, p.xxiv), quoted in Haney, 1984, p.618:

> "The test user who has faith -- however unjustified -- can speak with confidence in interpeting test results and in making recommendations. The well-informed test user cannot do this; he knows that the best of our tests are highly fallible instruments which are extremely difficult to interpret with assurance in individual cases. Consequently he must interpret test results cautiously and with so many reservations that others wonder whether he really knows what he is talking about."

6. Collaboration is discussed often by test directors, but it is too rarely put into practice. There are good models developing, nevertheless. Several are presented in Hathaway (1983), LeMahieu (1985), and Stiggins (1985). Not surprisingly, the key is providing the necessary time and human resources needed to support collaborative planning and teaching.

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